

REMARKS

The Office Action dated December 31, 2008 has been received and reviewed. Claims 1 to 24 are pending in the application. Claims 1-24 are rejected.

Independent claims Support for the amendments can be found throughout the Specification, and in particular, on page 14, lines 17-23.

Double Patenting

The Examiner rejected claims 1-24 under the doctrine of obviousness-type double patenting over claims 1-29 of U.S. Patent No. 6,720,187. Applicants respectfully submit that the above patent is commonly owned with this application. With this response, Applicants offer a terminal disclaimer.

Rejections under 35 USC 103

Claims 1-24 are rejected under 35 USC 103(a) as being unpatentable over Kellogg et al. (U.S. Patent 6,143,248) or EP 0693560. Applicants respectfully disagree.

Independent claims 1, 6, 10, 13, and 17 each claim a sample processing device including a plurality of process arrays, wherein the output chambers of the process arrays of the plurality of process arrays are arranged in a *rectilinear grid array*. Further, independent claims 1, 6, 10, and 13 also claim that the input chambers of the plurality of process arrays are arranged in *rectilinear grid array*. Kellogg et al. fail to teach or suggest any of these features.

Kellogg et al. describe a centrifugal rotor having, *inter alia*, entry ports (A), fluid chambers (E), and overflow chambers (D) arranged in a circular arc on a circular disk. (Kellogg et al., col. 31, line 61; col. 32, line 46 to col. 33, line 61; Figure 12). In fact, it is noted in the Office Action mailed February 27, 2007 (and cited in the final Office Action dated October 15, 2007, at page 3, line 13), that "[t]he Office maintains *all of the elements taught by Kellogg et al. are arranged in a circular arc around the disk axis as shown in figure 12.*" (emphasis added). Applicants submit that this is an acknowledgment by the Office that Kellogg et al. do not teach output and input chambers of the process arrays of the plurality of process arrays that are arranged in a *rectilinear grid array* as recited in claims 1, 6, 10, 13, and 17.

Kellogg provides no teaching as to the *arrangement* of elements of process arrays. Applicants maintain the position that Kellogg et al. fail to teach a sample processing device that includes input chambers and output chambers (or output chambers, as recited in claim 17) that are arranged in a rectilinear grid array, as recited in claims 1, 6, 10, 13, and 17. In addition, the Examiner has failed to identify a reason that one skilled in the art would be motivated to modify the elements of process arrays to form a rectilinear grid array as recited in claims 1, 6, 10, 13, and 17.

The Examiner appears to equate the rectilinear parallel channels in Kellogg to the rectilinear grid of input chambers and/or output chambers as claimed by Applicants. However, this conclusion ignores the distinction that in Kellogg, the channels, while for the purposes of argument the channels are rectilinear relative to each other, the channels are still oriented along a substantially radial line. This distinction is important when considering the vector forces exerted on the fluid when rotating. Once skilled in the art would not be motivated to arrange the input or output chambers in the rectilinear grid array format as claimed by Applicants because such configuration increases the force necessary to move the fluid, as the fluid moves from the center of rotation. When the input and/or output chambers are arranged in a rectilinear array, there is less force in the vector of desired movement of fluid, i.e., the fluid no longer moves radially from the center of rotation.

Claims 1-24 were also rejected under 35 U.S.C. § 103(a) as being obvious over EP 0693560. This rejection is respectfully traversed for similar reasons.

The test units of EP '560 include a single process array including chambers 50, 60, 62, 64 and 66 interconnected by channels in a "linear arrangement" so that "centrifugal force can be applied by the apparatus of Figs. 1-3 to properly sequence the flow of the liquid biological sample and liquid reagents through the test unit" (EP '560, col. 12, lines 37-42; Figures 4, 5, 6A, 7A, 8A, 9A, 10A, 11A, 12A, 13A, and 14A). Because of that arrangement of chambers of a process array provided on the test units of EP '560, it is submitted that EP '560 does not teach a sample processing device including a rectangular body and a plurality of process arrays *located within the body*, each of the process arrays including an input chamber, an output chamber, and a primary process chamber located between the input chamber and the output chamber,

wherein the primary process chambers are arranged in a circular arc, and further wherein the sample processing device includes output chambers arranged in a rectilinear grid array (claims 1, 6, 10, 13, and 17) and the input chambers are arranged in a rectilinear grid array (claims 1, 6, 10, and 13). As discussed above, given the increase in force necessary to move the fluid away from the center of rotation in the rectilinear grid array of input chambers and/or output chambers as claimed by Applicants, the Examiner has failed to identify a reason that one skilled in the art would be motivated to modify the test units of EP '560 to (1) to include a plurality of process arrays located within the body, each of the process arrays including an input chamber, an output chamber, and a primary process chamber, or (2) arrange either the output chambers or the input chambers in a rectilinear grid array.

For at least the foregoing reasons, it is submitted that claims 1, 6, 10, 13, and 17 are not obvious over Kellogg et al or EP '560. Thus, reconsideration and withdrawal of the rejections of claims 1-24 as obvious over either Kellogg or EP 0 693 560 is respectfully requested.

All outstanding objections and rejections are believed to have been met and overcome. If a telephonic conference with Applicants' undersigned representative would be useful in advancing the prosecution of the present application, the Examiner is invited to contact the undersigned at (651) 733-2180. A notice of allowance for all pending claims is respectfully solicited.

Respectfully submitted,

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